

In Newcastle, we have an ordinance that every property owner who wishes the head of the curb left off for a driveway must apply to the city engineer's office for a permit. This permit is made out in triplicate, one retained at the city engineer's office, one given to the property owner, and one given to the contractor. (We have plans for the driveways in the office.) Before the pavement is accepted the contractor must finish the driveway. Then we know when the street is finished and ready to be accepted by the city that every portion is completed, and there is no patch work to be done in the future.

ELIMINATING THE UNQUALIFIED CONTRACTOR

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An unqualified contractor, according to a recent prize-winning definition, is "One who takes a job for which he is not experienced, or for which he has not the suitable equipment and sufficient capital to finance, or at a price which does not insure to him a reasonable profit." This is a comprehensive definition, to say the least, and one which embraces the smallest as well as the largest operator. Moreover, it indicates that to be unqualified, a contractor need not be either bankrupt or in disrepute. Of course, if he persists in his malpractices he will ultimately be either, and most likely both.

The origin of the unqualified contractor is unknown to the writer. I sometimes think that he was closely related to Topsy, and that together they "just grewed up." The unqualified contractor differs from Topsy, however, in that in his growth he has been aided and abetted by other elements of the industry until he has become gigantic in his growth, and, consequently, a menace to the economic structure of the construction industry. Unaided and standing alone it would not be difficult to eliminate him; in fact, he would have long since eliminated himself by reason of his uneconomic procedure.

It would appear on the face of it that support for the unqualified contractor would be equally uneconomic, and that both he and his supporters would sustain losses alike. Were it not for the paternalistic legislation on our statute books today, it is highly probable that such would be the case. As it is, however, with the material producer selling his product without regard to the buyer's credit because of statutory

protection against a loss, with the surety underwriter executing a contract bond in violation of sound underwriting principles because of amplitude of the premium and the return on the reinvested dollar, with the equipment manufacturer resting his case on the right of repossession, with the banker basing his credit extension on the alluring profits of a contract job, and with the political subdivision awarding a contract to the lowest bidder without regard to his relative responsibility, it is not surprising that the unqualified contractor finds it possible to continue in the construction business. His elimination is in the interest of the public as well as the industry, for, as has been cited many times, where and when an unqualified, or irresponsible bidder receives a contract at figures slightly lower than those of a responsible bidder, the resulting inconvenience and delay caused by his failure have cost the public many times the difference in bids.

Official Opinion

It may be well at this point to consider what leaders in the construction industry think of this phase of the problem. The chairman of our own Indiana State Highway Commission, Mr. Albert J. Wedeking, has said, "If a public official knows beforehand that the firm from whom he buys service [speaking of the contractor] is not going to be able to render it, he is betraying his public trust just as surely as though he awarded a contract to a high bidder who was not entitled to it."

Frank T. Sheets, Chief Highway Engineer of the Illinois Department of Public Works and Buildings, in a recent paper before the American Society of Civil Engineers, commented on inexperienced contractors, or "construction novices," as follows: "A novice and his backers, like the reckless plunger, must be saved from themselves; and the public must be saved from them."

G. F. Schlesinger, former Director of the Department of Highways and Public Works of Ohio, recently said in discussing "Responsibility as a Prerequisite," "An attempt has been made to describe the qualifications for which the awarding official should seek in a bidder on highway contracts. It is true that the ideal is unattainable, but whenever the lowest bidder is in any degree undesirable, the awarding official is confronted with the problem of analyzing the relative merits of all bidders in order that the award may be sound, just, and to the best interests of the public."

The *Engineering News-Record*, a magazine devoted to civil engineering and contracting, commented editorially, under date of October, 1926, as follows: "It is freely admitted that responsibility of the contractor is the most necessary thing that must be made certain prior to the letting of a contract

if all of the undoubted advantages of the contract system of construction are to be preserved. * * * It is manifest that no single solution is possible, but that the raising of the standards of the contractors themselves, a revision of the practices of contract surety bonding and a better appreciation of their obligations by contract letting bodies all play their part."

These citations, I believe, are sufficient to indicate that there is a public side to this question which is of as much importance as the effect such conditions have on the industry; and it is, indeed, encouraging to have public officials, here and elsewhere, and leaders in the industry express themselves as they have on this subject.

It is not difficult to visualize the "tough sledding" an unqualified contractor would have were the prevailing loose credits in the construction industry eliminated. If the contractor's credit were looked to in the first instance by those with whom he must necessarily have business dealing, the unqualifiedness would not be a factor. The industry would then be on a stable basis and the responsible contractor would have only to compete with responsible bidders. We are, however, confronted with a condition and not a theory, and with this condition we have been confronted for years.

Qualification Questionnaire

Many and varied forms of questionnaires have been developed by engineers, public officials, and construction groups, for the express purpose of gauging relative responsibility, and one of the latest of these is the Standard Questionnaire and Financial Statement for Bidders as approved and recommended by the Joint Conference on Construction Practices for use in investigating the qualifications of bidders. This form, or questionnaire consists of a financial statement, which indicates the bidder's financial standing; an experience questionnaire, which reveals his past record; and a plan and equipment questionnaire, which gives information regarding his qualifications for undertaking a specific project. This information is given under oath. Each form is accompanied by an affidavit.

The joint conference at which the questionnaire was developed was composed of representatives of the highway officials, constructors, surety companies, and other commercial interests connected with the contracting industry. It has been approved by the American Association of State Highway Officials and recommended to the state highway departments for adoption. According to my latest information it is being used in the following states: New Mexico, Florida, Pennsylvania, Ohio, Kentucky, Wisconsin, Missouri, Georgia, Nebraska, Iowa, Delaware, and Illinois. Counties, municipi-

palities, the federal government, and private consulting engineers are also using this form. It is not maintained that the use of the standard questionnaires will solve the problem of determining to whom the award should be made; it is held, however, that the questionnaires will be of much aid to the awarding officials in arriving at the correct decision. In other words, if the use of this questionnaire is enforced, the awarding officials will have before them detailed information concerning each bidder's experience, equipment, and finance, and will thus be in much better position to form intelligent judgment than they could possibly be in the absence of any such questionnaire.

Pre-Qualification of Bidders

Since the development and adoption of this questionnaire as a means to curtail, at least, the extensive operations of the unqualified contractor, another plan has been developed of equal, if not greater value, as a means of attaining the end of placing definite limitations upon the activities of the unqualified contractor in the construction field; that is the pre-qualification of bidders. This term "pre-qualification" is used to designate the process of determining before the release of plans and specifications whether a bidder is competent or incompetent to perform a specific contract, in contradistinction to the common practice of qualifying the low bidder after the proposals are opened. This plan is in use today by the Bureau of Public Roads and the State Highway Departments of Wisconsin and Iowa and under it every bidder is made to pass his examination before he receives plans. Under the ordinary procedure followed today in most of the states where a bidder's questionnaire is used, the low bidder only is made to qualify, and if he fails, then the next lowest.

As viewed by the construction industry, the pre-qualification plan, though comparatively new, holds the greatest advantages to both contractors and the awarding bodies. From the contractor's viewpoint, it is the better plan because he ascertains in advance whether his proposal would be accepted if he were low, and with this information at hand he can avoid the trouble and expense ordinarily entailed in reviewing and estimating the cost of a specific project. From the viewpoint of the awarding body, the plan eliminates such unpleasantness as charges of favoritism, misconduct, and dishonesty, when it becomes necessary to reject the proposal of an unqualified bidder who may be low.

The Committee on Co-operation with Contractors, appointed by the American Association of State Highway Officials, subsequent to a joint meeting with the Associated General Contractors of America, during the latter part of November, 1928, approved and recommended to the American Association

of State Highway Officials the pre-qualification of bidders on public construction work. The report of the committee was then referred to the executive committee which, in turn, authorized the taking of a letter ballot on the approval of the report and recommendations of its provisions for pre-qualifications.

In commenting on the legality of pre-qualification, the Committee on Cooperation with Contractors said, "Nothing in the way of a court decision has yet been found by either of the committees. The nearest approach to it is a decision of the Comptroller General of the United States. He tacitly sustained the Supervising Architect in his refusal of plans to a bidder who had failed to qualify in accordance with the advertisement. A further indication of legality is the fact that the Bureau of Public Roads and the State Highway Departments of Wisconsin and Iowa have been pre-qualifying bidders for some time. Since a determination of responsibility is definitely required by law, and since the same bidder should receive the award irrespective of when the determination is made, there seems to be no real question of law involved. The courts have shown themselves very reluctant to interfere with the discretionary acts of administrative officers when they are performed in public interest."

This subject could be discussed at much greater length, setting out more in detail the advantages of the two plans suggested herein, designed as they are to regulate, if not eliminate, the unqualified contractor; but there has been enough said to indicate the trend of the industry concerning the matter. We are desirous only of setting up such standards in the construction industry as will insure prompt and quality performance of a given contract, at a reasonable profit to the contractor. If, as, and when this is accomplished, it can not be, in our opinion, other than in the best interests of the public and the construction industry alike.

HIGHWAY DRAINAGE PROBLEMS

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Mark Twain once remarked that we had been talking about the weather for more than 2,000 years but so far no one had done anything about it. Road drainage is also a perennial topic of discussion, especially at road meetings, and sometimes it would almost seem that no one had done anything about it, either.